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ABSTRACT

This booklet presents techniques used by the Office of Cancer Communications of the National Cancer Institute for pretesting health education materials for professional, patient, and public audiences. The approaches and experiences of other health organizations are also reviewed. Described are principles of pretesting and how pretesting can be incorporated into materials development. Some of the methods considered include questionnaires and individual and group interviews. Also discussed are resources needed to conduct pretesting research. A fundamental premise of the booklet is that health communication programs must be based on an understanding of the needs and perceptions of their target audiences. A glossary of pretesting terms and a bibliography are appended. (APM)

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Pretesting in Health Communications

Methods, Examples, and Resources for Improving Health Messages and Materials

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Preface

Communication plays an essential role in disease prevention and health promotion. Recently, programs designed to promote changes in health behaviors and to encourage early detection and prompt treatment of illness have demonstrated that mass media messages (1,2,5,7) can be effective in reducing risk of serious illness.

Communicating health and medical information effectively, however, is a difficult venture. The subjects are complex and often technical. In addition, the information to be communicated may be inconclusive and subject to change as new research findings are released. Many diseases, such as cancer, are fear-arousing, and public responses are sometimes emotional. As a result, the potential is high for misdirecting or alienating target audiences with inappropriate messages.

Pretesting is important to assess comprehension, attitudes, and other perceptions among the target audience in the early stages of communication planning and materials development. The diagnostic information learned from pretesting can lead to improvements in concepts, messages, and materials while revisions are still possible and affordable. Pretesting will not *guarantee* success, but it can help reduce some of the uncertainty and risk of producing materials that may be misunderstood or misinterpreted.

During the past several years, the Office of Cancer Communications (OCC), National Cancer Institute, has used various techniques to pretest materials with professional, patient, and public audiences. Planners in other health organizations also have pretested communication materials and have cooperated in sharing experiences and standardized approaches.

The purpose of this booklet is to share these pretesting experiences with health education planners and to encourage greater use of pretesting. The booklet describes the principles of pretesting, how pretesting can be incorporated into materials development, and the most commonly used methods. It also discusses what resources are needed to conduct pretesting research. A glossary of pretesting terms and a bibliography can be found in the Appendix.

The previous edition of this booklet was called *Pretesting in Cancer Communications*, and dealt exclusively with cancer-related messages and materials. Because of the widespread interest in the previous edition, and its application to other areas of health communication, this updated booklet incorporates examples from other health disciplines.

Two other handbooks on pretesting are available from the Office of Cancer Communications. *Readability Testing in Cancer Communications* provides step-by-step instructions for performing a readability test and for improving the readability of draft materials. *The Health Message Testing Service* describes a standardized approach for pretesting radio and television public service messages.

To request additional copies of this booklet and other information on pretesting and evaluation, please contact:

Rose Mary Romano
Office of Cancer Communications
National Cancer Institute
Building 31, Room 4B39
Bethesda, MD 20205
(301) 496-6792

The Purpose of Pretesting

What is Pretesting?

Pretesting is one type of formative evaluation research that is conducted in the early or formative stages of program development. The term pretesting is used to describe the process of systematically gathering target audience reactions to messages and materials before they are produced in final form.

Pretesting can help determine which of several alternative executions of an item may be most effective. Or, it can identify strengths and weaknesses in single executions. The findings can be used to revise and improve materials before they are distributed to selected audiences. Mass media messages and materials that are suitable for pretesting include print items such as pamphlets, booklets, posters, flyers, newspaper and magazine advertisements, and audiovisual items such as television and radio public service announcements (PSAs), broadcast programs, films, and slide shows.

What Does Pretesting Measure?

Pretests of messages and materials are usually designed to assess their effectiveness in the following categories:

Attention—Does the message attract and/or hold the audience's attention?

Comprehension—Is the message clearly understood? Are the main ideas conveyed?

Personal Relevance—Does the target audience perceive the message to be personally relevant?

Believability—Is the message and/or its source perceived as believable?

Acceptability—Is there anything in the message that may be offensive or unacceptable to the target audience?

Additional gauges of message effectiveness may include assessing target audience perceptions of the utility of the information contained in an item and the extent to which target audiences find messages or materials attractive, interesting, convincing, or alarming. Individual production elements within an item also can be pretested. For example, the music in a radio announcement, the cover art for a booklet, the characters in a film or television announcement—all can be assessed.

Pretesting in Health Communications

Pretesting is an established technique in commercial marketing and advertising. The essence of commercial success is to provide products or services that meet consumer needs. If the benefits offered are seen by consumers as unimportant, unnecessary, personally irrelevant, or otherwise unappealing or undesirable, the product or service may fail in the marketplace.

To avoid such failures, consumer perceptions of products and services are gathered *prior* to the full commitment of resources, before:

- considerable dollars and time are committed;
- the risk is taken of alienating or misdirecting consumers; or
- the point is reached when revisions are difficult or even impossible to make without starting over.

Systematic pretesting has been adopted only recently by health education program planners as an integral step in the development of mass media messages and materials. Several factors have contributed to the increased emphasis placed on pretesting.

Understanding characteristics of the target audience—its attitudes, beliefs, and behaviors—is considered an important element in producing effective messages. Actually involving target audiences in the formative stages of message development through pretesting can ensure a more effective communication exchange.

In the private sector, the effectiveness of a marketing program to influence consumer behavior usually can be quantified in terms of increases or decreases in sales. In health education, it is more difficult to achieve the desired behavior changes and to measure program effects. The task of communicating effectively also is more difficult. Pretesting ensures that messages with the greatest potential to influence target audience attitudes and behavior are disseminated.

Finally, pretesting in health education takes on greater importance when program resources are scarce. Agency administrators want to see results from program expenditures. Although pretesting requires expenditures of additional program dollars and may create delays in the development of materials, these expenditures may be minor compared to total production costs of materials that are ineffective because they are misunderstood or are not accepted.

Pretesting and the Health Communication Process

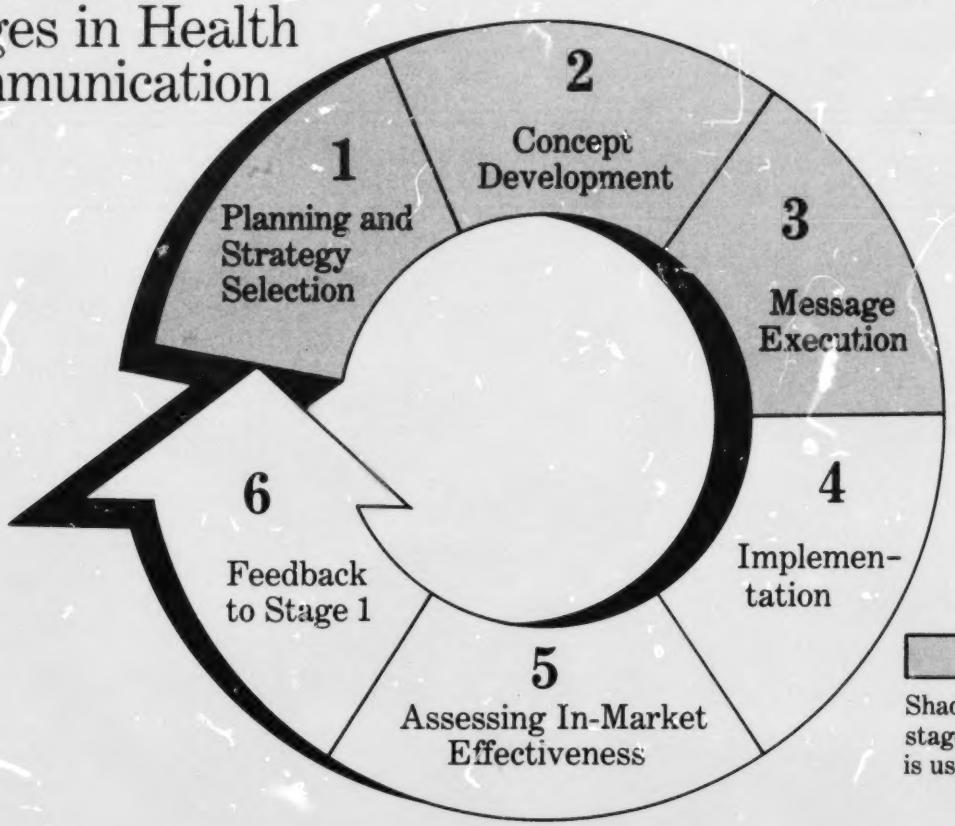
A fundamental premise of this booklet is that health communication programs must be based on an understanding of the needs and perceptions of their target audiences. The diagram below illustrates an approach to health communication that incorporates assessments of target audience needs and perceptions at critical points in program development and implementation. The six stages are a circular process, in which the last stage feeds back to the first in a continuous process of replanning and improvement.

The Office of Cancer Communications and other health agencies have used this approach for developing and implementing numerous public and patient education programs. It has served to organize communication programs so that time and resources are allocated efficiently for materials development as well as for pretesting and other evaluation research.

The six stages of health communication are described in this chapter to provide program planners with an understanding of this approach and to show

Figure 1

Stages in Health Communication



Shaded boxes indicate stages when pretesting is used.

how pretesting is used in the early stages of message development. The steps outlined below constitute an ideal process, one that may require more time and money than many agencies can afford. All of the steps may not be feasible, or in some cases even essential. Hence, program planners must apply their professional judgment as to what is appropriate for developing effective messages and materials for their particular programs.

Stage 1. Planning and Strategy Selection

The health communication cycle begins with defining program objectives, identifying target audiences, and establishing communication strategies that will provide consistency and cohesiveness to the program. To assist in this planning, information on public knowledge, attitudes, and behavior is gathered from existing health surveys, state-of-the-art literature reviews, and results from clinical trials.

The purpose of this research review is to find out what the public knows, believes, and does in regard to a particular health subject. What misconceptions do people hold? Do they have positive or negative attitudes toward certain health behaviors? Or are they ambivalent? What are the perceived benefits and barriers to achieving behavior change?

Research reviews may provide program planners with answers to these questions and also may provide clues for segmenting the target population into subgroups. For example, national surveys on high blood pressure have indicated that the target audience of "aware hypertensives" (people who know they have high blood pressure) can be segmented further into the following groups:

- those who take their medication regularly;
- those who take their medication occasionally (when they feel sick or nervous);
- those who have dropped out of treatment altogether.

Often, communication planners find that available data are outdated, inconclusive, or cannot provide enough direction for formulating program objectives or for identifying audience segments. Hence, it may be necessary to conduct primary research with individuals representative of the target audience.

This research may be quantitative—i.e., conducting household surveys of a large, random sample of respondents. It may be qualitative—i.e., interviewing a small sample of respondents in depth. Or, it may fall somewhere in between—i.e., using a combination of qualitative research such as focus groups with a small-scale telephone survey. Program budgets and timetables will dictate what is feasible.

Whatever method is chosen, the purpose of this research should be to find out, directly from people who are typical of the target audience, what they currently think and feel about a subject. The research should be designed to bring to life all of the data culled from research reviews and provide additional direction for program development.

With this information in hand, program planners can formulate a communication strategy. The communication strategy is a statement of the program's objectives, the primary and secondary target audiences to be reached, and the benefits and other information that must be communicated. This strategy statement provides writers and other creative staff with direction for all of the messages and materials that are developed. It also may contain the tactics that will be used to reach target audiences with the appropriate messages.

If the communication strategy is to tell smokers *how* to quit, messages that simply exhort them to quit are "off strategy." Similarly, if the primary target audience for a breast cancer program is women over 40, communication channels must be selected primarily to reach these women. Channeling messages to reach other age groups is a waste of program dollars. By carefully formulating the communication strategy and preparing promotion and distribution plans during Stage 1, time, money, and energy can be saved later on.

Stage 2.
Concept Development

On the basis of Stage 1 planning, message concepts are developed during Stage 2. These concepts are not finished messages; rather, each contains an idea for a full message. Concepts often consist of rough art work (a line drawing or sketch) and statements consisting of words or phrases to convey the main ideas for a message.

A series of 8 to 10 concepts for a television public service campaign, for instance, may involve different presenters (e.g., physicians, nurses, or patients), varied sociological appeals (e.g., peer approval or disapproval), or different approaches (e.g., emotional or logical). Each concept, however, must be based firmly on the communication strategy selected in the planning stage. If the strategy centers on communicating the *effectiveness* of a disease detection procedure, concepts that stress any other benefits or attributes are off the mark.

Pretesting at this stage can provide direction for eliminating weaker approaches and identifying message concepts that may have the most potential. Sometimes entirely new concepts emerge from audience responses. This winnowing process can save considerable time and effort in the next stage when rough concepts will be used for crafting complete messages.

For instance, in developing a mass media campaign to increase public awareness of the health risks associated with exposure to asbestos, 4 message concepts were prepared and pretested. These concepts were based on a communication strategy which sought to increase public understanding of the problems of asbestos exposure and also to convey the importance of taking certain actions if exposure has occurred. The message concepts were pretested among panels of older, blue collar males and females typical of the target audience. To give each message concept a visual dimension, a representative drawing was positioned next to several lines of copy and presented in poster form. Each concept used a different message presenter. These included an elderly shipyard worker, a doctor, the family members of a former shipyard worker, and a movie celebrity associated with World War II. Pretesting indicated that the message concept using a doctor as presenter did not fare well with male respondents and was considered the least interesting visually. In addition, certain phrases used in the copy that accompanied the other message concepts were found to be misleading and were revised in the message development stage.

Another advantage to pretesting rough concepts is the gathering of words, phrases, and vernacular from the target audience so that appropriate language can be used in formulating complete messages. For example, pathologists believed a lay description of the symptoms of melanoma (a form of skin cancer) should be "notched, blue-black, irregular spots." Interviews with members of the target population, however, suggested different adjectives entirely. When shown pictures of the symptoms, respondents used such terms as "looks like a bad sunburn," "a small rash," "blotchy," or "a bad scrape."

Stage 3.
Message Execution

Once the concepts with the most potential have been selected, complete messages can be created in appropriate formats for reaching target audiences. These messages, produced in rough form, are pretested in the message execution stage.

For instance, radio announcements may be produced in a nonstudio setting and with nonprofessional talent for pretesting purposes. A booklet can be prepared for pretesting, using typewritten copy and laying out rough artwork as it might appear in the final version. Similarly, posters, print ads, and flyers all can be mocked up in rough form for pretesting.

At the message execution stage, pretesting can be useful in the following ways:

A. Assessing Comprehension

Health messages and materials must be understood before they can be accepted. For example, in pretesting a slide-tape presentation on breast cancer, program planners learned that the presentation was considered generally clear and informative. However, the pretest also revealed that the narration needed to be slowed down so that all of the information could be better understood.

B. Assessing Recall

An essential ingredient of television and radio PSAs and posters is their ability to attract target audience attention. These messages are rarely seen or heard in an isolated media environment, and they must compete with other messages for viewer or listener attention.

In pretesting two different executions of television PSAs to promote running, program planners learned that one execution achieved much higher levels of message recall than the other. The higher scoring message showed people, typical of the target audience, running and talking about their own personal exercise experience. The lower scoring message used special visual techniques and a voice-over announcer, an execution which was not as effective in attracting the attention of pretest respondents.

"Have you noticed all of a sudden everyone is running. They're running to look better. Running to feel better."

"I started to run because my doctor suggested it. Now I run for me. Because I really enjoy it. It makes me feel strong and more alive."

C. Identifying Strong and Weak Points

Pretesting prior to final production and distribution can help ensure that each element of a message is likely to meet target audience information needs and perceptions.

For example, in pretesting a booklet on health risk appraisal, which contained an actual test for readers to complete, results indicated that the booklet was considered interesting and informative. However, the instructions for scoring the test were confusing. Respondents needed assistance in figuring out their scores and in plotting them on a scoring grid.

D. Determining Personal Relevance

To have an impact, it is important that target audiences perceive that a message is personally relevant to them.

In pretesting a booklet on high blood pressure among hypertensives and among a general audience sample, results revealed several important differences in the responses of these two groups. Hypertensives recalled and understood more specific points related to high blood pressure control than did the general audience group. Further, when asked whom the booklet was talking to, a higher proportion of hypertensives felt the booklet was "talking to someone like me."

E. Gauging Sensitive or Controversial Elements

Questions about audience sensitivity to subject matter often arise in developing health messages. Pretesting can help in finding out whether materials may alienate or offend target audiences.

For example, will a bare-breasted woman who demonstrates breast self-examination on television be an affront to adult viewers? Pretest results of such a message indicated that respondents held a range of views.

The Message	Percent Who Agree
Performs a useful public service	84%
Is very educational	59%
Is suitable for airing any time of the day	57%
Isn't at all offensive	54%
Is suitable for a general audience	54%
Would have been just as effective without showing a bare breast	30%

While more than 8 of 10 respondents felt the message performed a useful public service, the consensus was not as strong in regard to the issue of the message's offensiveness, its suitability for a general audience, or for airing any time of day. Judgment must now be applied as to whether the message should be produced in its present form or revised.

In the remaining three stages of the health communication process, programs are implemented and evaluated. Feedback from target audiences, however, should not end with the pretesting that was conducted in the formative stages of program development. Based on informal observations, additional qualitative studies and process measures, program planners can make mid-course corrections to keep their efforts on track.

Stage 4. Implementation

Following any revisions stemming from the message execution pretests, final production can be completed. The next step is to put the entire program into place in the field. At this point, care must be taken to monitor each aspect of the program. For instance, the number of phone calls or letters that have been generated by a mass media campaign can be logged. Or, monitoring services can be utilized to estimate the audience reach and the frequency of public exposure to television public service messages. These types of information gathering on message and materials implementation are known as process measures.

Stage 5.
Assessing In-Market Effectiveness

The *effects* of a public education program or a media campaign on public knowledge, attitudes, and behavior are measured during Stage 5 of the health communication process. For example, to assess the effects of a public awareness campaign on asbestos exposure, data about public knowledge and beliefs were gathered by means of a national survey prior to the distribution of mass media campaign materials, during the height of the campaign, and again 3 months later. The intent of this outcome evaluation is to assess program results; that is, what happened, in relation to original program objectives.

Stage 6.
Feedback to Stage 1 Planning and Strategy Selection

In the sixth stage, all the information gathered through pretesting and other formative research, as well as process and outcome evaluation, is analyzed in preparation for a new cycle of program messages and materials. For example, if evaluation research indicates that messages failed to have the desired effects on certain target audiences, this information can be applied in planning new messages. The data should be examined carefully to uncover problems and identify weaknesses that can be remedied in replanning health communication programs.

Pretesting Methods

Introduction

Pretesting encompasses various methods and approaches. The methods that are chosen depend on the nature of the materials, the target audiences, and the amount of time and resources available for pretesting. There are no set formulae for selecting the perfect method for pretesting. Methods must be chosen and shaped to meet each pretest need, with careful consideration given to specific pretest objectives and the resources required.

Many pretests in health communications are specially designed to assess individual messages or materials. This process may be simplified, however, by drawing from methodologies and questionnaires used by other agencies. The Health Message Testing Service (HMTS), described later in this chapter, is an example of a standardized pretest method that uses the same core set of questions for each test. To provide program planners with direction for preparing a pretest questionnaire, examples of standard HMTS questions are presented in the Appendix.

The following are examples of pretesting methods, adapted from marketing and communication research, which have been used by the Office of Cancer Communications and other health communication planners.

Method

1 Readability Testing*

A common criticism of health information is that messages are not understood by the intended audience. Readability testing is a simple pretesting technique that can predict the reading comprehension level a person must have in order to understand written materials.

Readability formulae use counts of language variables such as word and sentence length. The formulae have been devised statistically to predict comprehension scores. Actual participation by target audience respondents is not required. Depending upon the formula that is chosen, a readability test can take as little as 15 minutes to perform.

Readability levels vary depending upon the length of the sentences and the number of polysyllabic words used. Generally, the longer the sentences and the greater the number of polysyllabic words, the higher the reading level required. Because health and medical subjects tend to include many polysyllabic terms, program planners may consider including a glossary to define complex or technical terms.

Based on a review of the advantages, disadvantages, and predictive validity of 12 selected readability formulae, the Office of Cancer Communications chose the SMOG Grading Formula for testing the readability levels of public and patient education materials. SMOG was chosen because it is one of the simplest tests to use without sacrificing accuracy of prediction.

Readability testing should be used as a first step in pretesting draft manuscripts. Since it does not indicate *actual* comprehension or other reactions, target audience pretesting should also be conducted prior to final production of a booklet, brochure, or other printed message.

*A comprehensive booklet on this subject, *Readability Testing in Cancer Communications*, is available free from the Office of Cancer Communications.

Readability Testing

Summary

Purpose	To determine reading grade level of draft manuscripts
Materials to be Pretested	Leaflets, booklets, articles, or other draft manuscripts
Ideal Number of Respondents	No respondents required
Time Required	15 minutes
Resources Needed	• Readability formula • Staff trained in readability testing
Advantages	• Inexpensive • Quick
Disadvantages	• Does not provide target audience reactions

Method

2 Focus Group Interviews

Also called exploratory group sessions, focus group interviews are used to obtain insights into target audience perceptions, beliefs, and language in the early stages of health communication development. Focus group interviews are conducted with a group of about 8 to 10 respondents simultaneously. Using a discussion outline, a moderator keeps the session on track while allowing respondents to talk freely and spontaneously. As new topics related to the outline emerge, the moderator probes further to gain useful insights.

Focus group interviews are a form of qualitative research adapted by marketing researchers from group therapy. They are used for several purposes.

In the planning stages of program development, after research reviews have been completed, focus groups can be used to develop the hypotheses (or broad research issues) for larger quantitative studies. Focus groups can help determine public perceptions, misconceptions, and attitudes before a questionnaire is developed and the field research is conducted. The areas of research can be probed in focus groups to help generate ideas and develop hypotheses which will then be fully assessed in the larger, quantitative study.

For example, in planning a major national survey on public knowledge, attitudes, and practices related to breast cancer, researchers conducted separate focus groups with white, black, and Hispanic men and women to formulate the key issues. This qualitative research was particularly important with regard to the men and the minority groups because little information was available on their perceptions and beliefs regarding breast cancer. The focus groups helped researchers generate hypotheses and develop the wording for specific questions used in the national study.

Focus groups also can be used to help interpret quantitative research. Marketing researchers originally developed this technique to give them a better understanding of the data from large scale consumer surveys. By obtaining in-depth information from individuals typical of the target audience, researchers can gain better insights into what the statistical data mean.

Focus group interviews are especially useful as a pretesting tool in the concept development stage of the communication process. They provide insights into target audience beliefs on a health issue, allow program planners to obtain perceptions of message concepts, and help trigger the creative thinking of communication professionals. The group discussion stimulates respondents to talk freely, providing valuable clues for developing materials in the consumers' own language.

As with any *qualitative* research approach, however, care must be taken not to interpret results *quantitatively*. Hence, in pretesting message concepts, program names, logos, theme lines, or artwork, program planners should look for the implications, suggestions, or new directions that are indicated by this research.

For example, in pretesting potential names and logos for a county-wide heart disease prevention program in Pennsylvania, program planners conducted focus group interviews with respondents representative of the county's population. Respondents' perceptions of 10 possible logos and program names, representing a range of ideas related to heart disease

prevention, were gathered. Preferences were expressed for program names which specified the name of the county. Names that contained abbreviations were rejected as confusing. In terms of the logo designs, respondents preferred those which incorporated visual symbols of the program such as a heart or the shape of the county. These findings gave program planners direction for selecting a program name and creating a new logo design that incorporated both of these symbols.

As with all pretesting research, focus group respondents should be typical of the intended target audience. Various subgroups within the target audience should be represented. For example, in testing message concepts on smoking aimed at a general audience of smokers, a cross-section of individuals—males and females, heavy and light smokers, older and younger—might be recruited for the focus groups.

Respondents are recruited 1 to 3 weeks in advance of the interview sessions, usually by telephone. They may be recruited at random, using the telephone directory, and interviewed to determine if they qualify for the group. Or, they may be recruited from a list of individuals representative of the target population. Recruiting respondents at random is the preferred method.

There are several important criteria for conducting effective group interviews. Respondents should not know the specific subject of the sessions in advance, and they should not know each other. Knowing the subject may result in respondents carefully formulating ideas in advance and thus not talking spontaneously about the topic during the session. Knowing other respondents may inhibit individuals from talking freely. Finally, all respondents should be "newcomers" to focus group interviews. This allows for more spontaneity in reactions and eliminates the problem of "professional" respondents who may lead or monopolize the discussion.

It is desirable, especially when pretesting on sensitive or emotional subjects, to segregate respondents by age, sex, race, or whatever other variable is likely to hinder freedom of expression. Teenage girls are less likely to be inhibited in discussing sexual activity, for instance, if their parents, or teenage boys, are not in the group.

There is no set rule on the number of focus groups that should be conducted. The number of groups inevitably depends upon program needs and resources. If target audience perceptions appear to be comparable from one group to the next, four focus groups should suffice. If perceptions vary, and the direction for message development is unclear, additional groups may be necessary.

An experienced, capable moderator, who can skillfully handle the group process, should be used. The moderator must be well informed on the subject and the purpose of the groups in advance. A good moderator builds rapport and trust and should probe respondents without reacting to and thereby influencing their opinions. The moderator must be able to *lead* the discussion, rather than *be led by* the group. A good moderator keeps the discussion on track while talking as little as possible and makes it clear that he or she is not an expert on the subject.

As noted earlier, the results of focus group interviews should be interpreted carefully. It is useful for an unseen observer (behind a one-way mirror) to take notes as well as to tape record the session for later review. In interpreting the findings from group interviews, program planners should look for trends and patterns in target audience perceptions rather than doing just a "he said . . . she said" kind of analysis.

Focus groups should not be used when individual responses or quantitative information are needed. For example, when assessing the final copy for a booklet, it is more important to gather individual rather than group reactions. The former are more indicative of the individual's actual comprehension, perceptions, and intended use.

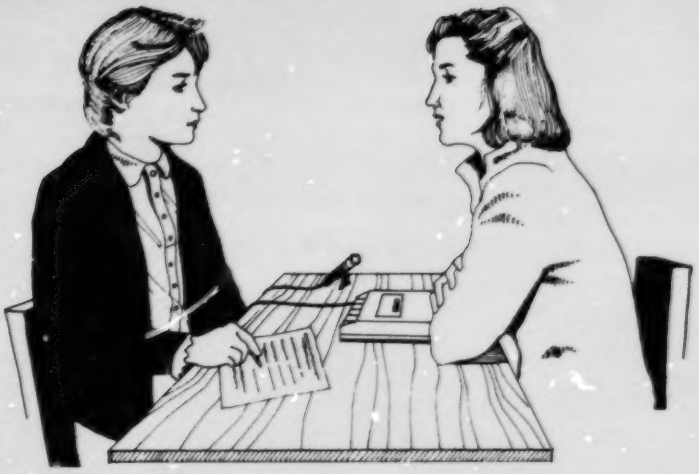
Focus Group Interviews

Summary

Purpose	To obtain insights into target audience perceptions, beliefs, and language in the early stages of health communication development
Materials to be Pretested	• TV, radio, or print message concepts, theme lines • Logos and rough artwork
Ideal Number of Respondents	• 8 to 12 per group • Minimum of 4 groups
Time Required	• About 2 weeks for arranging groups and recruiting respondents • 90 minutes per group • 2 days to conduct groups • 5 days to analyze interviews and write report • Total time, from planning to completion of report, up to 3-4 weeks
Resources Needed	• Discussion outline • Trained moderator • Respondents typical of the target audience • Comfortable meeting room for conducting interviews • Tape recorder • One-way mirror for observing sessions (optional)
Advantages	• Group atmosphere provides greater stimulation than individual interviews • Excellent technique for obtaining qualitative information from several respondents at once • Direction for message development stage can be gathered relatively quickly
Disadvantages	• Should not be used when quantitative data are needed for decision making, as in message execution stage • Qualitative nature of the research and small sample sizes do not allow for developing norms against which to compare results

Method

3 Individual In-Depth Interviews



Individual in-depth interviews are used for pretesting issues that must be probed deeply or when individual rather than group responses are needed. Such interviews can be quite long, lasting from 30 minutes to an hour, and are used to assess comprehension as well as feelings, emotions, attitudes, and prejudices. These are areas which are not normally elicited in the more common public opinion interviews.

Individual in-depth interviews, like focus group sessions, should be conducted by experienced interviewers who usually follow a discussion outline. A structured questionnaire can be used in those cases where the pretester is concerned about obtaining respondents' reactions to a core set of items.

The interviewer must be skilled at building rapport so that respondents feel comfortable and talk freely. Interviewers also should be adept at probing respondents about their feelings and reactions to the materials being tested. The interviewer's sensitivity is crucial in conducting interviews on emotional subjects and with individuals who may react emotionally to the materials being pretested.

In-depth interviews can be conducted nearly anywhere, although a quiet spot where both interviewer and respondent can concentrate is preferable. Interviews conducted in the home may be useful when the session requires demonstration or easy recall of in-home practices, or when specific, hard-to-reach individuals, such as inner-city women, must be involved in the pretest. With patient populations, a quiet office at the clinic or the hospital is an appropriate site for conducting in-depth interviews. Tape recording the sessions allows the interviewer to concentrate fully on the interaction and also facilitates analysis of the interviews later on. Respondents should be assured of anonymity and given an explanation of how the interview results will be used.

When pretesting booklets through in-depth interviews, respondents can serve as "copy editors."* For example, in pretesting draft manuscripts of materials intended for teenage cancer patients, respondents were asked to read the drafts and to write their comments and suggestions directly on the drafts. Respondents were asked to underline those parts they felt were most important, to cross out what they did not like, and to put a question mark on parts they did not understand. After respondents had finished reading and commenting on the material, they were probed in depth about their reactions.

Because of the amount of time involved in conducting in-depth interviews, it is advisable to schedule appointments in advance. For special target audiences, such as patients or elderly people, staff members at clinics or senior citizen residences may assist program planners in identifying respondents.

Pretesting through individual in-depth interviews is often applied at the concept and message development stages. Like focus groups, in-depth interviews represent a qualitative method, usually conducted with small numbers of respondents. The subjective nature of responses and the small sample size require careful interpretation of results. The information gathered through probing respondents in depth is an aid to professional judgment, and should not be used to make broad generalizations without further research confirmation.

Certain disadvantages of the in-depth interview approach should be considered by program planners. The amount of time and expense involved in recruiting respondents, administering the interviews, and analyzing the results are the most significant factors. Nonetheless, the technique can be very useful for gaining rich insights, especially when the subject matter is sensitive.

*This copy editing technique can be used in combination with other pretesting methods as well.

Individual In-Depth Interviews

Summary

Purpose	In depth probing of target audience attitudes, beliefs, and emotions
Materials to be Pretested	• Message concepts • Draft manuscripts, including those on sensitive or emotional subjects
Ideal Number of Respondents	Minimum of 10 to 25
Time Required	• 3 weeks to design questionnaire and arrange interviews • 30 to 90 minutes per interview • Number of days required to conduct interviews varies depending upon availability of respondents • 5 to 10 days to analyze interviews and write report • Total time, from planning to completion of report, up to 4-6 weeks
Resources Needed	• Discussion outline or questionnaire • Trained interviewer • Quiet room • Tape recorder
Advantages	• Provides opportunity to probe individual respondents in depth • Can obtain pretest information on sensitive or emotional subjects • Good for interviewing hard-to-reach audiences
Disadvantages	• Time-consuming to arrange, conduct, and analyze results • The qualitative information obtained should not be used to make broad generalizations

Method

4 Central Location Intercept Interviews

Central location intercept interviews involve stationing interviewers at a point frequented by individuals from desired target audiences and asking them to participate in the pretest. There are two advantages to this. First, a high traffic area can yield a number of interviews in a reasonably short time. For instance, a Baltimore shopping mall was used to interview 340 men and women on DES (a drug once used to prevent miscarriages) messages in 2 days. Second, a central location for hard-to-reach target audiences can be a cost-effective means of gathering data. In pretesting skin cancer communication concepts, the central locations chosen were construction sites and beach areas. These locations were excellent for locating respondents who are exposed excessively to the sun.

A typical central location interview begins with the intercept. Potential respondents are stopped and asked whether they would be willing to participate. Then, specific screening questions are asked to see whether they fit the criteria of the target audience for the pretest. If so, they are taken to the interviewing station—a quiet spot at a shopping mall or other site—and are shown the pretest materials. Respondents then are asked a series of questions to assess recall, comprehension, and reactions to the items.

Although the respondents intercepted through central location interviews may not be statistically representative of the entire target population, the sample is larger than those used in focus groups or individual in-depth interviews. Program planners often use the central location technique at the message development stage when assessments of comprehension, attention, believability, and other reactions are essential.

Unlike focus groups or in-depth interviews, the questionnaire used in central location intercept pretesting is highly structured and contains primarily multiple choice or closed ended questions. Open ended questioning, which allows for free flowing answers, should be kept to a minimum because it takes too much time for the interviewer to record responses. The questionnaire, as in any type of research, should be pilot tested before it is used in the field.

A number of marketing research companies throughout the country conduct central location intercept interviews in shopping malls. Clinic waiting rooms, churches, Social Security offices, schools, or other locations frequented by individuals representative of the target audience also can be used for this purpose. It is advisable to obtain clearances or permission to set up interviewing stations in these locations well in advance.

In pretesting a bilingual (Spanish/English) booklet on breast feeding for a pilot maternal and child health care program, a marketing research company with bilingual interviewers was used to conduct pretest interviews at several clinics in a large metropolitan

area. These clinics served members of the target audience of pregnant women and women who had recently given birth.

During the pretest, interviewers were stationed in the clinic waiting rooms to intercept respondents who then were led to a quiet location for the actual interview. Respondents were given the breast feeding booklet to read. When they were through, the interviewers returned to administer the pretest questionnaire. The total amount of time required, from intercept to completion of the interview, averaged about 35 minutes. Using six interviewers, two at each of three sites, 150 interviews were completed in about 3 days.

The major advantage of the central location intercept approach is its cost-effectiveness for interviewing large numbers of respondents in a short amount of time. Designing a central location intercept pretest also can be relatively easy. One or two screening questions, to identify respondents typical of the desired target audience, should be administered at the point of intercept. Questions to assess comprehension and target audience perceptions of the pretest materials form the core of the questionnaire. A few additional questions, tailored to the specific item being tested, also may be constructed to meet program planners' particular needs.

Central location intercept interviews should not be used if respondents must be interviewed in depth on emotional or very sensitive subjects. The intercept approach also may not be suitable if respondents are likely to be skeptical or resistant to being intercepted on the spot. Although it is more time-consuming to set up prearranged appointments, this approach may save time in the end if respondents are not willing to cooperate.

Central Location Intercept Interviews

Summary

Purpose	To obtain target audience reactions to concepts and messages from fairly large numbers of respondents in a short period of time
Materials to be Pretested	• Message concepts • Print materials such as booklets, leaflets, posters, ads • Broadcast messages such as radio and television PSAs
Ideal Number of Respondents	100 to 200
Time Required	• 3 weeks to design questionnaire and arrange interviews • Length of interview depends on pretest design; average is about 20 to 30 minutes per interview • Number of days required for field work varies depending upon length of interview, number of interviewers, and traffic in central location; average is about 4 days • 10 days to tabulate results and write report • Total time, from planning to completion of report, is up to 4-6 weeks
Resources Needed	• Structured questionnaire • Trained interviewers • Access to central location frequented by individuals typical of target audience • Interviewing station
Advantages	• Quick method for obtaining large numbers of interviews • Flexible for pretesting many types of materials • Technique can be adapted for pretesting in a variety of locations • Use of many closed ended questions allows for quick analysis of results
Disadvantages	• Inappropriate for probing on sensitive or emotional subjects • Interviews cannot be long

Method

5 Self-Administered Questionnaires

Self-administered questionnaires also can be used to pretest materials. These questionnaires may be mailed to respondents along with the pretest materials, or distributed to respondents gathered at a central location. The Office of Cancer Communications has used this technique in cases where personal interviews have not been feasible. Self-administered questionnaires can be an inexpensive pretesting technique for agencies with minimal resources.

This technique involves designing a questionnaire to meet pretest objectives, then pilot testing it with 5 to 10 respondents. Usually, questionnaires and pretest materials are distributed to respondents whose participation was sought in advance. Respondents are asked to review the materials on their own, to complete the questionnaire, and then to return it within a specified time.

The questionnaire should be a reasonable length or respondents may not complete it. Open ended questions may be used to assess comprehension and overall reactions to materials and closed ended questions to assess such factors as personal relevance and believability of the material. Measures of attention or recall cannot be used with this technique since there is no way of controlling respondents' exposure to the material.

In a pretest of a long booklet on coping with cancer, the cooperation of several cancer patient groups and comprehensive cancer centers was sought. The booklet and the pretest questionnaires were mailed to respondents by contacts at each organization. These items then were returned directly to program planners after respondents had completed their questionnaires. Because respondents had marked the booklets with editorial comments, it was essential that these be returned as well. Self addressed, stamped envelopes were provided for this purpose. To boost the response rate, follow-up telephone calls were made.

Self-administered questionnaires allow program planners to elicit detailed information from respondents who may not be accessible for personal interviews, such as doctors, teachers, or media professionals. They also allow respondents to maintain their anonymity. Another advantage of this method is that it does not require any interviewer time and can be done relatively inexpensively. Resources are invested in questionnaire development and analysis of results. The latter expense can be kept to a minimum by using many closed ended questions.

Self-administered questionnaires have certain disadvantages. The primary problem with this technique is the possibility of a low response rate and the need to recontact respondents to encourage them to return their questionnaires. It is important to over-recruit respondents to ensure a sufficient number of returns. This method may take much longer than central location intercept interviews because of delays in responses.

Another problem is that the type of respondents who return the questionnaires may be different from those who did not respond. Hence, a certain degree of bias may be introduced and results should be interpreted with this in mind.

Self-Administered Questionnaires

Summary

Purpose	To obtain target audience reactions to draft materials
Materials to be Pretested	Print materials such as booklets or leaflets
Ideal Number of Respondents	Minimum of 20
Time Required	• 2 to 3 weeks for designing questionnaire and recruiting respondents • 3 to 4 weeks tor obtaining responses • 5 to 10 days for analyzing results and writing report • Total time required from planning to completion of final report is up to 6 to 8 weeks
Resources Needed	• List of potential respondents • Structured questionnaire
Advantages	• Inexpensive • Does not require time for interviewing • Respondents maintain anonymity • Can reach target audiences inaccessible through central location intercepts or those unlikely to cooperate with personal interviews
Disadvantages	• Response rate may be low and cause delays • Respondents are self-selected, introducing a certain degree of bias • Respondents' exposure to pretest materials cannot be controlled

Method

6 Health Message Testing Service (HMTS)

The Office of Cancer Communications has joined with the National High Blood Pressure Education Program, the Office of Health Information and Health Promotion, and the Office of Public Affairs of the U.S. Department of Health and Human Services, to sponsor a standard system of pretesting health public service announcements for radio and television. HMTS testing can help message producers assess their messages prior to final production and gauge the following:

- the ability of a message to attract attention;
- recall of important ideas;
- whether a message is considered by the target audience to be personally relevant, believable, interesting, and informative; and
- other indications of message strengths and weaknesses.

The service is currently provided free of charge to health and human service organizations. The following is a brief description of how HMTS works.*

Health message producers submit a prefinished TV or radio spot, as well as information on message objectives and target audiences, to HMTS staff at the Office of Cancer Communications. Testing is conducted with 300 respondents in three geographically diverse cities. The respondents are recruited by mail.

At each test location, respondents view a pilot TV show or listen to a pilot radio program. Within each show are both test and control messages including the HMTS message and commercials for products and services. Respondents see or hear each test message twice.

Following each exposure to the message, attention and main idea communication are measured by asking the audience to indicate all the messages they remember (attention) as well as the main idea of each message.

A series of standard questions used in all HMTS testing then is administered to measure certain audience responses such as degree of believability, personal relevance, and comprehension. These standard measures also are used for comparing results with previously tested spots. Finally, a series of questions, specifically designed for each message test, is administered to assess audience comprehension of message copy points and to address any sensitive, controversial, or questionable elements in the message.

A final analysis and report of the test results is available about 5 weeks after the test date. Preliminary results are provided in about 2 weeks.

The Health Message Testing Service has been expanded to include print messages and materials. Health-related institutions and other organizations may contact the Office of Cancer Communications to obtain further information about the service.

*_The Health Message Testing Service: a Standardized Approach for Assessing Audience Response to Health Messages_ is another booklet available from the Office of Cancer Communications which describes HMTS in detail.

Health Message Testing Service (HMTS) Summary

Purpose	To assess attention, comprehension, believability, and other target audience reactions with fairly large samples of respondents
Materials to be Pretested	• Radio and television PSAs • Printed materials such as booklets, posters, flyers, and ads
Ideal Number of Respondents	Minimum of 300
Time Required	• 2 weeks for designing questionnaire and identifying respondents • 2 days for conducting field work • 2 weeks for tabulating results • 1 to 2 weeks for analyzing results and writing report • Total time required, from submitting message to completion of report, is up to 8 weeks; preliminary data are available in 2 weeks
Resources Needed	• Rough produced PSA or print item • Statement of message objectives and target audience • HMTS supplies questionnaire, data analysis, and report
Advantages	• Standardized approach • Results can be compared with results of previously tested messages • Large sample size in 3 geographically diverse locations • Provides results on basic pretesting measures and can tailor questions for specific messages
Disadvantages	• Requires up to 8 weeks for results • Limit on the number of open ended questions that can be asked

Method

7 Gatekeeper Review

Often, public and patient education materials are distributed to their intended target audiences through health professionals or other intermediary organizations. These intermediaries act as gatekeepers, controlling the distribution channels for reaching target audiences. Their approval or disapproval of materials is a critical factor in a program's success. If they do not like a poster or a booklet, it may never reach the public.

Although not a pretesting technique in the strictest sense of the term, gatekeeper review of rough materials is important and should be considered part of the formative evaluation process. It is not a substitute for pretesting materials with target audience representatives. Neither is it a substitute for obtaining clearances or expert review for technical accuracy; these should be completed within the organization before pretesting is undertaken.

Gatekeeper reviews are conducted simultaneously with target audience pretesting so that data from both groups can be gathered, analyzed, and synthesized to provide direction for revising materials. A short, self-administered questionnaire, directed to individuals representative of the gatekeeper population, is a sufficient tool for conducting this review. Questions may include such areas as overall reactions to the materials and assessments of the appropriateness, completeness, and utility of the information.

For example, while cancer patients and family members reviewed the coping with cancer manuscript described earlier, copies also were sent to staff at the Cancer Information Service (CIS), a toll-free telephone network that provides information about cancer to the public and to health professionals. Because the CIS offices would be a key distribution channel for the booklet, staff comments were solicited during the message execution stage, and considered along with target audience responses in formulating recommendations for revising the booklet.

Gatekeeper Review

Summary

Purpose	To gather reactions of potential gatekeepers to draft materials prior to final production
Materials to be Pretested	Printed or audio-visual program materials
Ideal Number of Respondents	Minimum of 10 to 25
Time Required	• 3 to 4 weeks to obtain responses through self-administered questionnaires • 1 to 2 weeks to analyze results • Up to 4-6 weeks from planning to completion of report
Resources Needed	• List of potential respondents • Short, structured questionnaire
Advantages	• Inexpensive • Provides direction for revisions from a critical population
Disadvantages	• May get low response rate • Results based on small sample and should be interpreted carefully

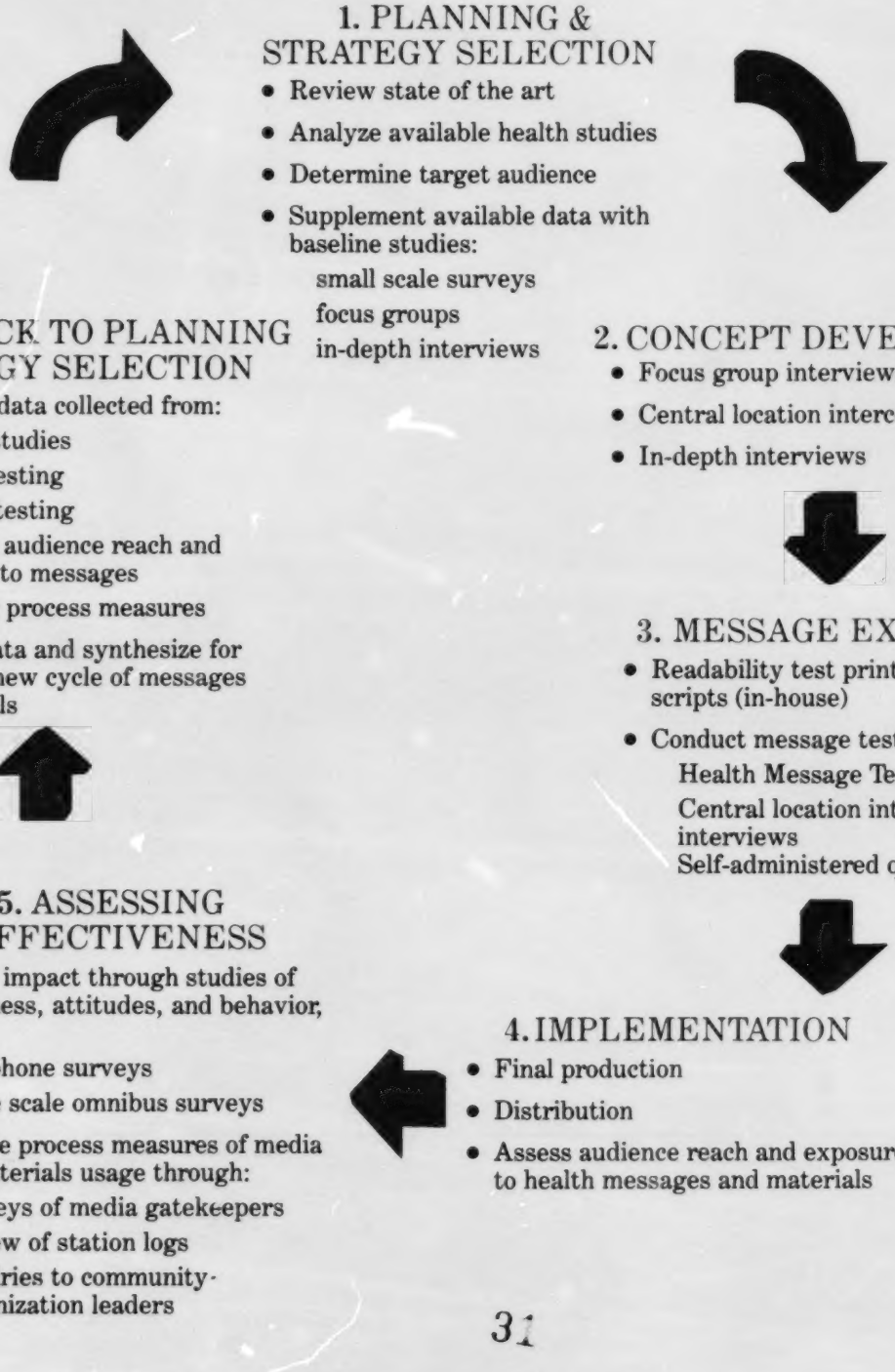
Pretesting Methods Conclusion

Pretesting methods should be selected and designed to meet the specific needs and objectives of program planners. Focus group and individual in-depth interviews are useful qualitative research techniques during the planning and concept development stages. Readability testing should be used as a first step in pretesting draft manuscripts, then followed by pretesting with target audience respondents. Central location interviews with larger samples of respondents, or pretesting comparable to the type used by the Health Message Testing Service, should be applied during the message development stage. Self-administered questionnaires for pretesting printed materials with target audiences or for conducting gatekeeper review are inexpensive pretesting methods.

Figure 2 on page 27 presents the six stages of the health communication process and the various pretesting and evaluation methods that can be applied at each stage.

Figure 2

Pretesting and Research Methods Applied in the Six Stages in Health Communication


1. PLANNING & STRATEGY SELECTION
• Review state of the art
• Analyze available health studies
• Determine target audience
• Supplement available data with baseline studies:
small scale surveys
focus groups
in-depth interviews
2. CONCEPT DEVELOPMENT
• Focus group interviews
• Central location intercept interviews
• In-depth interviews
3. MESSAGE EXECUTION
• Readability test print materials and scripts (in-house)
• Conduct message testing via:
Health Message Testing Service
Central location intercept interviews
Self-administered questionaires
4. IMPLEMENTATION
• Final production
• Distribution
• Assess audience reach and exposure to health messages and materials
5. ASSESSING EFFECTIVENESS
• Assess impact through studies of awareness, attitudes, and behavior, using:
telephone surveys
large scale omnibus surveys
• Compile process measures of media and materials usage through:
surveys of media gatekeepers
review of station logs
inquiries to community-organization leaders
6. FEEDBACK TO PLANNING & STRATEGY SELECTION
• Analyze all data collected from:
baseline studies
concept testing
message testing
assessing audience reach and exposure to messages
compiling process measures
• Interpret data and synthesize for replanning new cycle of messages and materials

Limitations of Pretesting

Pretesting can provide program planners with objective information and direction for improving concepts, messages, and materials while revisions still are possible and affordable. However, given the qualitative nature of most pretesting research, it is important to recognize certain limitations.

Pretesting is neither an absolute predictor nor a guarantee of success in terms of learning, persuasion, behavior change, or other measures of communication effectiveness.

Pretesting in health communication is seldom designed to quantitatively measure small differences among large samples; it is not statistically precise. It will not reveal that Execution A is 2.5 percent better than Execution B. Presumably, pretests of such precision could be applied, but the cost of obtaining such data would be high, and the findings may be no more useful than the diagnostic information from more affordable approaches.

Pretesting is not a substitute for experienced judgment. Rather, it is a tool to provide direction from which sound decisions can be made.

Given these limitations, it is important to avoid misuse of pretest results. Perhaps the most common error is to overgeneralize. Qualitative, diagnostic pretest methods should not be used to estimate broad-scale results. If 5 of the 10 respondents in a focus group interview do not understand portions of a pamphlet, it does not necessarily mean that 50 percent of the total target population will be confused. This lack of understanding among the pretest respondents suggests, however, that the pamphlet may need revisions to improve comprehension. In sum, pretesting is indicative, not predictive.

Another problem that arises in health communication pretesting concerns interpretation of respondent reactions to sensitive or emotional subject matter such as breast cancer. Respondents may become unusually rational when reacting to such pretest materials, and cover up their true concerns, feelings, and behavior. As a result, the pretester must examine and interpret responses carefully.

Pretesting offers both the opportunity and the temptation to structure the test and interpret results to support or justify a preconceived point of view. It is natural to want favorite concepts or messages to test well, but it does no good to prove a point in pretesting only to have it disproved after a full commitment of resources.

One final point: pretesting does not necessarily lead to flawless execution. Good planning and sound pretesting can be negated by mistakes in final production. The message in a television PSA on cancer treatment, for instance, may pretest well, but then be flawed by an execution that uses an actress who seems too happy to be awaiting the results of a biopsy report. Similarly, leaflet copy that pretests well may be rendered ineffective by a poor layout, hard-to-read type, and inappropriate illustrations.

Planning and Conducting Pretesting Research

The level of effort and staff resources required for pretesting will vary from one pretest to the next. While it would be ideal to pretest messages and materials with large samples of representative, randomly recruited respondents, this is not feasible for most organizations. Instead, most pretesting is conducted with small samples consisting of respondents who are typical of the target audience and who are easily accessible for pretesting. This approach imposes certain limitations on generalizing about pretesting results. However, these results, combined with professional judgment, provide important direction for improving messages and materials prior to final production.

The following discussion is intended to provide program planners with practical suggestions for how to plan and implement pretesting research. These suggestions should help program planners reduce the time and costs involved in pretesting research, whether or not commerical research firms are hired to supply field work and tabulation services. Rough cost estimates for conducting pretesting research using commercial research firms are presented in the Appendix. Direct costs are estimated for the major pretesting methods described earlier.

Designing the Questionnaire

As in the planning stage of program development, a first step in planning a pretest is to formulate the research objectives. These objectives should be stated specifically to provide a clear understanding of what program planners want to learn. Measures of attention, comprehension, believability, and personal relevance are the key communication pretesting measures. Other questions to identify strengths and weaknesses in rough messages and materials also should be developed based on the pretest objectives. *Questions should not be asked just to satisfy someone's curiosity.*

There are several ways to keep pretesting costs down. First, keep the questionnaire short and to the point. Second, for easy tabulation and analysis, try to use as many closed ended or multiple choice questions as possible. When using open ended questions, try to develop the codes for quantifying these responses in advance. For example, when asking an open ended question on the main ideas a booklet is trying to get across, list the main point codes on the questionnaire. That way, free flowing responses can be categorized and tabulated relatively quickly and accurately.

Whenever possible, borrow questions from other pretesting research. The examples from HMTS testing that appear in the Appendix are one source. The reports available from the Office of Cancer Communications and listed in the Appendix are another. *Communications Pretesting*, listed in the Bibliography, contains descriptions of methodologies and questionnaires for testing radio and television announcements, posters, pamphlets, and films.

Recruiting Respondents

If program budgets do not allow for recruiting respondents through randomized techniques or through research firms, program planners have a number of options for recruiting respondents typical of the target audience.

For focus group or individual in-depth interviews, seek the cooperation of local church, civic, social, or fraternal groups who have an interest in the materials or programs that are being developed. These groups may be willing to assist in the pretest. A small donation in return for their help is appropriate. For focus group interviews, it is best to recruit respondents who do not know each other. Hence, the membership lists of several local groups should be used.

To pretest materials targeted to patient or specialized health audiences, contact clinics, hospitals, or HMOs in your service area. Clinics may be an excellent place for conducting in-depth or central location intercept interviews. They also may be used to recruit a pool of respondents for a pretest using self-administered questionnaires.

Recruiting Interviewers

Trained interviewers should be used in pretesting research whenever possible. For focus group and in-depth interviews, this is essential. Agencies that have no experience in focus group research might consider starting by hiring a good, experienced moderator, observing and taping the sessions, and using them as training for developing in-house skills. Local advertising agencies may be of assistance in identifying a good moderator. Continuing education courses in interpersonal communication or group interaction also may be useful.

For conducting central location interviews, university and college departments of marketing, communications, or health education might be helpful. Pretesting a poster or an advertisement is an excellent "real world" research project which faculty members might be interested in adopting as a class project. Students in these departments are being trained in research methods, and pretesting would give them the chance to develop their skills.

Facilities

Pretesting facilities should be quiet and comfortable. Meeting rooms at churches, office buildings, or other institutions can be used for conducting focus group or individual in-depth interviews. If an observation room with a one-way mirror is not available, another means of allowing staff members to observe the group is to hook up speakers in a room nearby. That way, staff can listen to the interviews as they are happening.

For central location intercept interviews, it is important to obtain permission for conducting the interviews in advance. The interview station need not be any fancier than a bridge table and two chairs. It should be situated away from highly trafficked areas to avoid distractions.

Obtaining Research Assistance

Many resources exist for obtaining professional assistance in pretesting. The faculty at university departments of marketing, communications, health education, psychology, or sociology can be helpful in designing and conducting pretests.

Many communities have marketing research firms that specialize in respondent recruitment, interviewing, tabulation, and other services. Such firms also may have facilities for conducting group sessions and other techniques. *The Greenbook: International Directory of Marketing Research Houses and Services* identifies suppliers and services for each city throughout the United States. Also, there are advertising clubs throughout the country, many affiliated with the

American Advertising Federation, that undertake public service communication projects, sometimes at no charge to nonprofit organizations.

Individuals trained in commercial testing may not be completely aware of all the nuances and subtleties involved in health communication. They should be able to draw on their advertising research experience for selecting the appropriate pretesting methodology. But, there are many factors, such as primary and secondary audience selection, concept and message development, sensitivity of subject matter, and wording and interpretation of questions and results that are influenced by the complexities of health information. The old adage that managers should know enough about each facet of their business to manage their experts holds true for pretesting. Experts can be used, but they should be closely supervised and guided.

In addition to these resources, the Office of Cancer Communications can provide limited pretesting assistance to health agencies and organizations on request. Staff consultation for developing, conducting, and interpreting pretest results is available, as is the Health Message Testing Service for pretesting broadcast PSAs and printed materials.

Conclusion

This booklet has been developed to provide program planners with an understanding of pretesting in health communications. To yield useful results, however, a pretest should be planned carefully. Ample time should be allowed for:

- contracting outside research firms (if necessary);
- arranging for the required facilities;
- developing and testing the questionnaire before field application;
- recruiting interviewers and respondents;
- gathering the data;
- analyzing the results; and
- making the appropriate recommendations.

Without adequate planning, pretesting may not serve its intended purpose—to improve messages and materials prior to final production. Instead, it may be seen as an unnecessary expense for research that is of little or no use. The Office of Cancer Communications has not found this to be the case. For OCC and many other health agencies, pretesting has been a valuable tool for developing communication programs that have contributed to improving the health of the public.

Appendices

Appendix A

Standard Questions Used by the Health Message Testing Service

In pretesting radio and television public service announcements or printed materials such as booklets, the Health Message Testing Service uses a standard set of core questions to assess main idea communication, believability, personal relevance, and other target audience reactions. These standard questions are listed below to assist program planners in developing pretest questionnaires. The questions can be modified by changing the words in parentheses to fit the particular item that is being pretested.

1. **Main Idea Communication/Comprehension**
   What was the *main idea* this (message) was trying to get across to you?

   What does this (message) ask you to do?

   What action, if any, is the (message) recommending that people take? (Probe: What other actions?)

   In your opinion, was there anything in the (message) that was confusing?

   Which of these phrases best describes the (message)?
   - Easy to understand
   - Hard to understand

2. **Likes/Dislikes**
   In your opinion, was there anything in particular that was worth remembering about the (message)?

   What, if anything, did you particularly like about the (message)?

   Was there anything in the (message) that you particularly disliked or that bothered you? If yes, what?

3. **Believability**
In your opinion, was there anything in the (message) that was hard to believe? If yes, what?

_____

_____

Which of these words or phrases best describes how you feel about the (message)?

Believable
Not believable

4. **Personal Relevance/Interest**
In your opinion, what type of person was this (message) talking to?

Was it talking to . . .
Someone like me
Someone else, not me

Was it talking to . . .
All people
All people, but especially
(the target audience)
Only (the target audience)

Which of these words or phrases best describes how you feel about the (message)?

Interesting
Not interesting

Informative
Not informative

Did you learn anything new about (health subject) from this (message)? If yes, what?

_____

_____

5. **Other Target Audience Reactions**
Target audience reactions to pretest materials can be assessed using pairs of words or phrases or using a 5-point scale. The following is an example of how this is done.

Listed on this sheet of paper are several pairs of words or phrases with the numbers 1 to 5 between them. I'd like you to indicate which number best describes how you feel about the (message). The higher the number, the more you think the phrase on the right describes it. The lower the number, the more you think the phrase on the left describes it. You could also pick any number in between. Now let's go through each set of words. Please tell me which number best describes your reaction to the (message).

Practical	1	2	3	4	5	Not Practical
Too Short	1	2	3	4	5	Too Long
Discouraging	1	2	3	4	5	Encouraging
Comforting	1	2	3	4	5	Alarming
Well Done	1	2	3	4	5	Poorly Done
Not Informative	1	2	3	4	5	Informative

6. **For Assessing Artwork**
Just looking at the drawing (or picture), what do you think it says?

_____

_____

Is there anything in this drawing (or picture) that would bother or offend people you know?

_____

_____

Appendix B

Estimated Direct Costs for Pretests Using Commercial Research Firms

The following tables indicate approximate costs for conducting pretests *with the assistance of commercial research firms.* Costs will vary by region and by supplier, so it can pay to request bids from several companies. Also, savings are possible by using existing facilities and staff. However, like any other assessment from which judgments will be drawn, it is important not to operate on so low a budget that results may be compromised.

Focus Group Interviews (estimated for one group of 10 respondents)

a.	Recruitment (general audience)	$ 150 – 300
b.	Respondents' fees (not always necessary)	100 – 150
c.	Facilities, audio taping, miscellaneous	75 – 175
d.	Moderator	100 – 250
e.	Moderator's analysis and report	200 – 400
		$ 625 –1,275

In-depth Interviews (estimated for 25 interviews)

a.	In-home interviews	$ 500 –1,125
b.	Clinic or other single site interviews	250 – 625
c.	Tabulation, analysis, and report	250 –1,625
		$ 750 –2,250

Central Location Intercept (estimated for 100 interviews)

a.	Facilities (e.g., renting space in a shopping mall)	$ 50– 100
b.	Recruit respondents and conduct interviews	1,000–2,500
c.	Tabulation, analysis, and report	1,000–2,500
		$2,050–5,100

Self-Administered Questionnaires (estimated for 20 respondents)

a.	Questionnaire and booklet reproduction and mailing	$ 50 – 150
b.	Tabulation, analysis, and report	150 – 500
		$ 200 – 650

Appendix C

Pretest Reports Available from the Office of Cancer Communications

A. Focus Group Interviews

1. **Concepts for TV and Radio Messages on Hazards of Asbestos**

   Public attitudes and perceptions on the problem of asbestos, and concepts for a series of radio and TV public service announcements, were assessed through group sessions with blue collar workers and older men and women.

2. **Print Ads on Cancer Myths and Misconceptions**

   Public knowledge and prevalence of ten myths and misconceptions about cancer were investigated in a series of eight focus group interviews. In addition, three possible formats for print ads about cancer myths were assessed.

3. **Breast Cancer Screening**

   Focus group interviews were conducted with inner-city women to generate hypotheses for a quantitative study of underutilization of a breast cancer screening center. Attitudes and beliefs about breast cancer, and use of free screening or clinic services were assessed.

4. **Colon-Rectum Cancer Detection**

   Awareness, attitudes, and exploratory concepts were investigated for the American Cancer Society, District of Columbia Division, to assist in the development of a public education effort on the detection of colon-rectum cancer.

B. Individual In-Depth Interviews

1. **Adolescent Cancer Patient Concept Papers**

   In-depth interviews with teenage cancer patients were used to pretest a series of 9 concept papers. The interviews concerned the relevance of the concept papers to teenage patients, whether any issues needed to be expanded, deleted, or added, and to obtain direction for the most appropriate medium for developing materials.

2. **Cancer Site Pamphlets**

   Three site pamphlets (lung, colon-rectum, breast) were pretested among patients and their families in cooperation with the Comprehensive Cancer Center of the State of Florida. Comprehension and reactions to the pamphlets and their appropriateness for patients were pretested.

3. **Breast Cancer Site Pamphlet**

   Based on the pretest noted above, the breast cancer site pamphlet was revised and pretested again in cooperation with the Northwestern University Medical Center's Oncology Clinic. Patients and patient-related individuals were interviewed to assess comprehension of specific medical terms compiled in a glossary, and other reactions to the tone and content of the pamphlet.

C. Central Location Intercept Interviews

1. **Smoking Cessation TV Message**
   Main idea recall and reactions to a rough television PSA produced by the National Interagency Council on Smoking and Health were studied. One hundred interviews with men and women, smokers and nonsmokers, were conducted in two shopping malls in New York.

2. **Booklet Explaining How Chemicals Are Tested For Cancer-Causation**
   Comprehension, readability, and relevance were examined for a booklet containing complex, technical information intended for the lay public. Central location interviews were conducted in a suburban New Jersey shopping mall.

3. **Concepts for a Smoking Cessation Poster**
   A series of concepts and designs for a smoking cessation poster were tested. Comprehension measures and target audience preferences were gathered.

4. **Melanoma Education Concepts**
   Public knowledge, attitudes, and practices regarding skin cancer were investigated for Massachusetts General Hospital. Also, visual concepts and messages for identifying and detecting melanoma were tested in central location interviews at construction sites and beaches in the Boston area.

D. Self- Administered Questionnaires

1. **Booklet on Coping with Cancer**
   Self-administered questionnaires were used to pretest a long draft manuscript on the psychosocial issues related to cancer for comprehension, personal relevance, believability, and other target audience perceptions. Respondents also were told to "copy edit" the manuscript as they read.

2. **Booklet for Educators on "Cancer in the Classroom"**
   Questionnaires and draft booklets were sent to teachers, principals, counselors, and school nurses to gather reactions to the booklet, to identify areas that needed improvement, and to obtain specific suggestions from educators on how to facilitate a young cancer patient's return to the classroom.

3. **Booklet on "Testing Chemicals for Cancer"**
   Questionnaires and draft booklets were mailed to consumer affairs officers at supermarket chains, health officers at health departments, and doctors. Questionnaires were designed to gather professionals' judgments of the booklet's accuracy, clarity, completeness, and appropriateness for lay audiences.

E. Health Message Testing Service (HMTS)

Reports on test results for television and radio public service messages that have been pretested through this service are available from the Office of Cancer Communications. The subjects of test messages include: smoking cessation, breast self-examination, maintaining high blood pressure treatment, physical fitness, losing weight, preventing drug abuse, testing for juvenile hearing loss, using seat belts, asbestos exposure, health risk appraisal, and promotion of an information hotline.

To obtain copies of these reports, please contact:

Rose Mary Romano
Office of Cancer Communications
National Cancer Institute
Building 31, Room 4B39
Bethesda, MD 20205
(301) 496-6792

Appendix D

Glossary

Attention. A pretesting measure to describe a message's ability to attract listener or viewer attention; this is often called recall.

Attitudes. An individual's predispositions toward an object, person, or group, which influence his or her response to be either positive or negative, favorable or unfavorable, etc.

Central location intercept interviews. Interviews conducted with respondents who are stopped at a highly trafficked location that is frequented by individuals typical of the desired target audience.

Closed ended questions. Questions that provide respondents with a list of possible answers from which to choose; also called multiple choice questions.

Communication concepts. Rough art work and statements that convey the idea for a full message.

Communication strategy. A written statement that includes program objectives, target audiences, an understanding of the information needs and perceptions of each target audience, what actions they should take, the reasons why they should act, and the benefits to be gained. This document provides the direction and consistency for all program messages and materials.

Comprehension. A pretesting measure to determine whether messages are clearly understood.

Convenience samples. Samples that consist of respondents who are typical of the target audience and who are easily accessible; not statistically projectable to the entire population being studied.

Diagnostic information. Results from pretesting research that indicate the strengths and weaknesses in messages and materials.

Execution. The form or manner in which a message strategy is carried out; also called rendition or version.

Focus group interviews. A type of qualitative research in which an experienced moderator leads about 8 to 10 respondents through a discussion of a selected topic, allowing them to talk freely and spontaneously.

Formative evaluation. Evaluative research conducted during the program development stage; this may include state-of-the-art reviews, pretesting messages and materials, and pilot testing a program on a small scale before final production.

Frequency. In advertising, this term is used to describe the average number of times an audience is exposed to a specific media message.

In-depth interviews. A form of qualitative research consisting of intensive interviews to find out how people think and what they feel about a given topic.

Intermediaries. These are organizations, such as professional, industrial, civic, social, or fraternal groups, that act as channels for distributing program messages and materials to members of the desired target audience.

Open ended questions. Questions that allow an individual to respond freely in his or her own words.

Polysyllabic words. Words that contain three or more syllables.

Pretesting. A type of formative research that involves systematically gathering target audience reactions to communication messages and materials before they are produced in final form.

Process measures. Evaluation research concerned with the process of program implementation; includes assessments of whether materials are being distributed to the right people and in what quantities, whether and to what extent program activities are occurring, and other measures of whether and how well the program is working.

Qualitative research. This research is qualitative or subjective in that it involves obtaining information about feelings and impressions from small samples of respondents. The information gathered usually cannot be quantified in numerical terms, and hard and fast generalizations should not be made.

Quantitative research. Research designed to gather objective information from representative, random samples of respondents; results are expressed in numerical terms (e.g., 35 percent are aware of X and 65 percent are not). Quantitative data are used to make generalizations about the target audience.

Random sample. A sample of respondents in which every individual of the population has had an equal chance of being included in the sample.

Reach. In advertising, this term is used to describe the number of different people or households exposed to a specific media message during a specific period of time.

Readability testing. Using a formula to predict the approximate reading grade level a person must have achieved in order to understand written material.

Recall. In pretesting, this term is often used to describe the extent to which respondents remember seeing or hearing a message that was shown in a competitive media environment; usually centers on main idea or main copy point recall.

Segmentation. Subdividing an overall population into homogeneous subsets of target audiences in order to better describe and understand a segment, predict behavior, and formulate tailored messages and programs to meet specific needs. Target audiences may be segmented demographically (e.g., age, sex, education, family life cycle), geographically (e.g., Southeastern U.S., rural, north side of town), and by a variety of characteristics sometimes called psychographics (e.g., personality, lifestyle, usage patterns, risk factors, benefits sought).

Self-administered questionnaires. Questionnaires that are filled out by respondents themselves; these can be mailed directly to the respondent or they can be filled out by groups of respondents who are gathered at a central location.

Summative evaluation. Research designed to summarize a program's accomplishments and effectiveness; also called outcome or impact evaluation.

Target audience. The desired or intended audience for program messages and materials (see segmentation).

Appendix E

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